

# **SMART GROWTH INDEX**® A Sketch Tool for Community Planning

Version 2.0
Introduction
November 2002

Prepared for the U.S. ENVIRONMENTAL PROTECTION AGENCY by CRITERION PLANNERS/ENGINEERS INC.



#### Introduction

Smart Growth INDEX (SGI) is a GIS-based tool designed to community planning by modeling "snapshot sketches" of community scenarios. A snapshot sketch is a static, or single point in time, analysis of existing or proposed conditions. With such modeling, SGI is intended to help stakeholders and decision-makers:

- Create plans through issue identification, alternatives analysis, and goal-setting.
- Implement plans by evaluating proposed development consistency with adopted goals.
- Achieve plans by measuring progress toward goals over time.

At the heart of SGI is a set of indicators used to benchmark existing conditions, evaluate alternative courses of action, and monitor change over time. Indicators are measurements of key community characteristics that provide insights into overall conditions. The premise of SGI is that plan formulation and implementation can be valuably informed by indicator measurements that are used to gauge planning actions. Figure 1 illustrates a typical community planning process and the stages where SGI snapshots can provide this kind of support. Some users may choose to apply the tool systematically in all stages, while some may find it helpful at one or two key points. Regardless of where it is applied, it should be viewed as a support tool intended to inform rather than as a regulatory device intended to control.

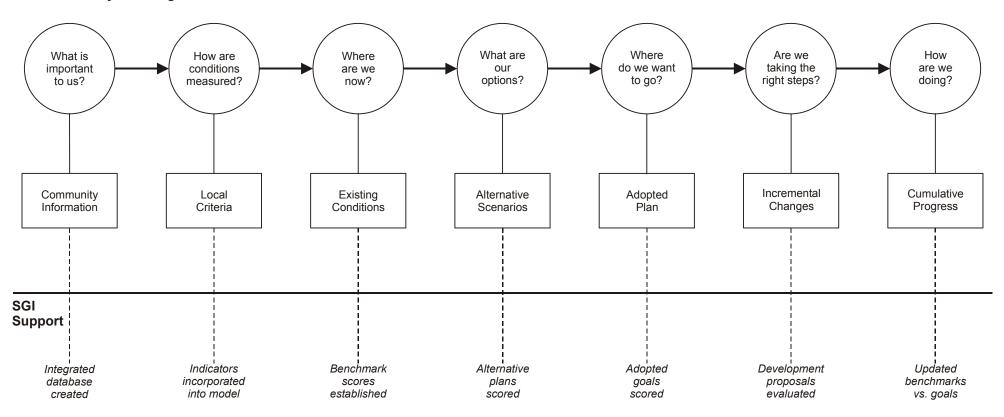
SGI has a menu of 56 indicators available for evaluating sketches. From this menu, users may select those indicators that are most relevant to a given scenario. Figure 2 illustrates the two kinds of indicator measurements made in SGI snapshots: first, a numerical score for the sketch area; and second, mapping of the spatial pattern that produced the score. In this way users obtain both quantitative and geographic assessments of a scenario. The numeric scores are interpreted in relation to typical standards, common conditions in the local area, other alternative sketch scores, or adopted goals where they already exist. The geographic results are used to identify areas where strengths can be protected and areas where weaknesses need to be corrected.

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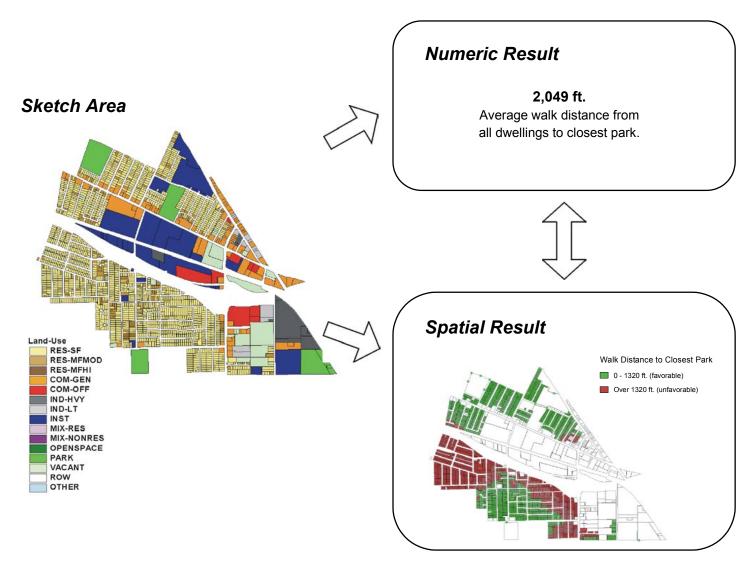
Figure 1. SUPPORT OF COMMUNITY PLANNING WITH SMART GROWTH INDEX

## **The Community Planning Process**



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Figure 2. INDICATOR EXAMPLE: HOUSING PROXIMITY TO PARKS



### **SGI 2.0 Documentation**

The User Notebook contains the following documents for the 2.0 version of SGI:

- Getting Started Guide. This introductory guide takes the new user through a tour of SGI highlights and then a detailed step-by-step tutorial.
- Steward Guide. This is a technical reference intended for advanced users designated as a "model steward" by their organization.
- Indicator Dictionary. This details each indicator by definition, units of measurement, calculation formula, required shapefiles, and applicable user-defined parameters.
- Community Process Guide. This describes techniques for integrating SGI into typical community planning processes, and how the model can support common planning tasks.

In addition to these core elements, the User Notebook contains an appendix of documentation for SGWATER, a stormwater evaluation methodology embedded in SGI.

# **GIS Software Requirements**

SGI is built as a MapObjects/Visual Basic application that operates on its own without standard GIS platforms like ArcView or ArcGIS. However, SGI does require GIS files in shapefile format, so access to an ESRI GIS is necessary for efficient operations.